

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF NORTH CAROLINA  
CHARLOTTE DIVISION  
CIVIL ACTION NO. 3:02-CV-70-DCK**

<b>SPIROFLOW SYSTEMS, INC.</b>	)	
	)	
<b>Plaintiff,</b>	)	
	)	
<b>v.</b>	)	<b><u>ORDER</u></b>
	)	
<b>FLEXICON CORPORATION,</b>	)	
	)	
<b>Defendant.</b>	)	
	)	

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**THIS MATTER IS BEFORE THE COURT** on “Defendant’s Motion For Claim Construction” (Document No. 38) filed January 30, 2004; “Defendant Flexicon Corporation’s Amended Brief in Support Of Its January 30, 2004 Motion For Claim Construction...” (Document No. 60) filed August 11, 2005; “Plaintiff’s Motion For Claim Construction” (Document No. 62) and “Plaintiff’s Brief In Support Of Its Motion For Claim Construction ...” (Document No. 63) filed August 11, 2005; Defendant Flexicon’s Opposition To Plaintiff’s Motion for Claim Construction” (Document No. 66) filed September 7, 2005; Plaintiff’s Reply Brief In Support Of Motion For Claim Construction...” (Document No. 70) filed September 21, 2005; “Defendant’s Memorandum In Support Of Its Motion For Claim Construction...” (Document No. 77) filed December 22, 2006; and “Plaintiff’s Supplemental Brief In Support Of Its Motion For Claim Construction” (Document No. 78) filed December 22, 2006. The parties have consented to Magistrate Judge jurisdiction pursuant to 28 U.S.C. § 636(c), and these motions are ripe for disposition.

**I. BACKGROUND**

Spiroflow Systems, Inc. (“Plaintiff”) filed this action in February 2002 against Flexicon

Corporation (“Defendant”) alleging infringement of its United States Patent No. 5,787,689 (“the ‘689 patent”) entitled “Bag Discharge Construction Apparatus And Method For Constriction Control.” Plaintiff received its patent on August 4, 1998 for a device which operates to manipulate the openings of upturned industrial bags, restricting the gravity induced flow of materials from such bags. Defendant received a patent for its own “Bag Closing Apparatus” U.S. Patent No. 6, 502, 367, on January 7, 2003.

On September 29, 2004, the Court determined that it was appropriate to defer consideration of the pending motions for claim construction until after a decision was rendered following the rehearing of Phillips v. AWH Corp., 363 F.3d 1382 (Fed. Cir. 2004).

The Federal Circuit issued its *en banc* decision in that case on July 12, 2005. See Phillips v. AWH Corp., 415 F.3d 1303 (Fed. Cir. 2005). In a status hearing in the instant case held on November 29, 2006, the undersigned issued an Order requiring a claim construction, or Markman<sup>1</sup> hearing. On December 22, 2006, the parties submitted supplemental briefs (Document Nos. 77, 78) and then a Markman hearing was held on January 24, 2007.

## II. STANDARDS

Claim construction is a matter of law, to be decided by the Court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 387-88 (1996). “The purpose of a Markman hearing is to ascertain the meaning of a patent’s claims so that it is clear precisely what has been patented and, by consequence, the protections the patent therefore affords the patent holder.” Ohio Willow Wood Co. v. Daw Industries, Inc., No. 2:04-CV-1222, 2006 WL 462364 at \*2 (S.D.Ohio, Feb. 22, 2006).

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<sup>1</sup> Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed. Cir. 1995) aff’d, 517 U.S. 370 (1996).

Claims should be construed with a focus on “what one of ordinary skill in the art at the time of the invention would have understood the term to mean.” Markman, 52 F.3d at 986. “Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” Vitronics Corp. v. Conceptronic, 90 F.3d 1576, 1582 (1996). “It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*) quoting Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004); see also Vitronics, 90 F.3d at 1582 (“we look to the words of the claims themselves ... to define the scope of the patented invention.”).

The words of a claim are “generally given their ordinary and customary meaning” unless a patentee has clearly stated in the patent specification or file history that a different meaning should be applied. Vitronics, 90 F.3d at 1582. “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” Applied Material, Inc. v. Tokyo Seimitsu, Co., Ltd., 446 F.Supp.2d 525, 529 (E.D.Va. 2006) citing Phillips, 415 F.3d at 1315.

After careful consideration of the intrinsic evidence - the claim language, the specification, and the prosecution history - the undersigned is prepared to construe the disputed claims of the ‘689 patent.

### **III. DISCUSSION**

The parties dispute the proper construction of portions of Claims 1 and 20 of the ‘689 patent.

Claim 1 in pertinent part states:

the control bars are supported such that the confined shape does not change as the control bars are moved and stopped closer to or farther from each other in their respective planes to vary the area of the confined shape at each of the plurality of different positions, whereby the movement of the control bars toward and away from each other changes the opening in the bag evenly from all sides and minimizes tearing stresses.

Plaintiff contends that proper construction “in view of the patent specification ... means that:

When the control bars are contacting the bag opening, the confined shape defined by the bars does not substantially change so that the control bars gather the bag opening evenly from all sides and minimizes tearing stresses on the bag.”

“Plaintiff’s Motion For Claim Construction” (Document No. 62 at 2) (emphasis added).

Defendant’s interpretation of the proper construction of claim 1 would require that:

The first control bar and the second control bar define an opening between them. The opening has a predetermined shape (or spatial contour that is decided beforehand). The neck of a bag to be constricted is placed in this opening. The control bars are supported such that the confined shape (or spatial contour) does not change or become different when the control bars are moved closer to or farther from each other. The confined shape (or spatial contour) changes only in area as the control bars move in their respective planes to each of several different positions.

“Defendant’s Memorandum In Support Of Its Motion...” (Document No. 77 at 4) (emphasis in original).

#### **A. Claim 1**

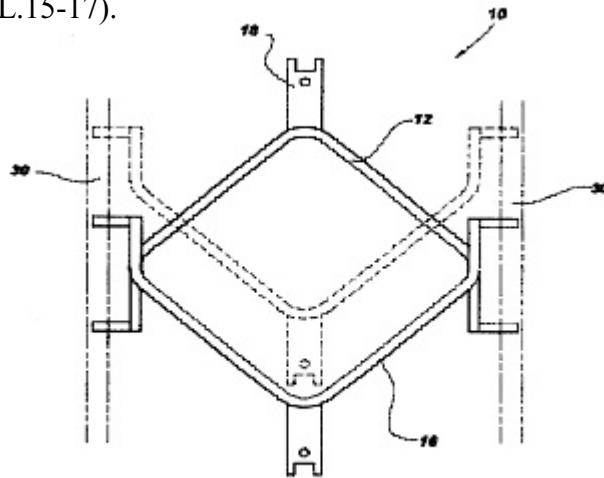
After careful review of the ‘689 patent in its entirety, the undersigned finds Defendant’s interpretation of claim 1 to be most consistent with the language of the patent and thus reaches a similar construction of the disputed term. Plaintiff has forcefully argued that the Court should

construe the patent with a focus on the intrinsic evidence, and the Court has done so. Nevertheless, the undersigned still finds that Defendant’s narrower interpretation of the ‘689 patent is proper and consistent with an “ordinary and customary meaning” of the key terms. While the undersigned has not totally disregarded extrinsic evidence, the use of the disputed terms within the four corners of the ‘689 patent has been the focus of the undersigned’s analysis.

First, claim 1 describes the opening between the control bars as a “predetermined confined shape ... such that the confined shape does not change as the control bars are moved.” (Patent P. 6, L. 36-39). The undersigned construes both “predetermined confined shape” and a confined shape that “does not change” as descriptions of a shape or contour that is preset by the apparatus and is not altered by the functioning of the apparatus. The patent’s summary of the invention specifically states that “the confined shape does not change, but varies in area....” (P. 2, L. 51-52). The language of that sentence, juxtaposing “shape does not change” with “but varies in area” reinforces that the shape remains the same, whereas the area varies, or changes. The patent’s author could have easily stated that the shape also varies, or that it does not change much, or does not change substantially or significantly, but there is no such clarification. The language of the patent simply states, “shape does not change.”

“Plaintiff’s Supplemental Brief In Support Of Its Motion For Claim Construction” (Document No. 78) cites a 2005 decision by the Federal Circuit to bolster its position that it is necessary to consider the claim terms in the context of the entire patent, and specifically noting that a “claim construction that excludes a preferred embodiment...is rarely, if ever, correct.” Pfizer, Inc. v. Teva Pharmaceuticals USA, Inc., 429 F.3d 1364, 1374 (Fed. Cir. 2005). In the instant case, the undersigned has carefully considered the preferred embodiment which describes in one pertinent

part: “[a]s can be seen in FIG. 3, the predetermined shape of the opening 20 is maintained at all times, and it changes only in size as the control bars 12, 16 are moved toward or away from each other.” ( Patent P.4, L.15-17).



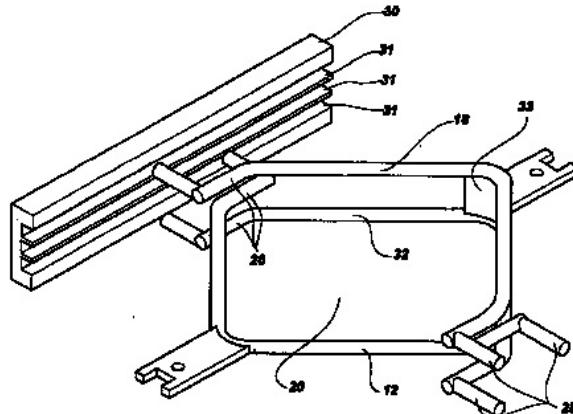
**Fig. 3**

Here the language of the preferred embodiment further defines “not change” as “maintained at all times” - emphasizing a change **“only”** in size. The patent’s author could have left the description at “maintained” but instead added “at all times” or could have written “changes in size” but instead wrote “changes only in size.” (Emphasis added). This additional modifying language leaves the interpretation of “shape does not change” in the context of this patent as unambiguously opposed to any change of shape.

The next paragraph of the preferred embodiment begins “[b]ecause the opening 20 changes only in size, the stresses that are placed on the neck of the bag are much more evenly distributed....” (P. 4, L. 26-29) (See also Fig. 4 below). Again, the patent describes a change only in size, and excludes any mention of any change in shape.

Defendant’s proposed construction is more consistent with the language of the patent itself than is Plaintiff’s. Plaintiff construes “not change” in claim 1 as “not change substantially” while

the patent itself equates “not change” with “maintained at all times” and “changes only in size.” Reading the patent as a whole and in a manner that is internally consistent as insisted upon by the Plaintiff, and required by Pfizer, leaves no doubt that the predetermined shape of the apparatus’ opening should not change at all. See Pfizer, 429 F.3d at 1373-74.



In fact, claim 7 of the ‘689 patent identifies the apparatus of claim 1 as “a rectangle” and claim 8 goes on to describe in greater detail that

**[t]he apparatus of claim 1**, wherein the angled relationships are such that, when the first control bar and the second control bar are moved in relation to one another, the overlapping of the angled relationship of the first control bar with the angled relationship of the second control bar **at all times forms a rectangle....**

(Patent P. 7, L. 12-19) (Emphasis added). The definition of rectangle has not been argued thus far in these proceedings; nevertheless, Merriam Webster’s Collegiate Dictionary, Tenth Edition, unequivocally confirms the Court’s understanding that a “rectangle” is “a parallelogram all of whose angles are right angles.”

Furthermore, claim 1 describes the movement of the control bars toward and away from each

other as changing the opening in the bag evenly from all sides. The undersigned construes even changes in this context as synonymous with equal changes. If an opening is changed evenly from all sides, then that opening would keep, or maintain its shape. As discussed above, under the '689 patent, that would mean the "predetermined confined shape" stays the same, or constant. If that shape is a rectangle, and the sides of that rectangle move evenly toward or away from each other, then the shape of that rectangle will remain the same and only the area of the rectangle will change.

The last sentence of the '689 patent's abstract reinforces this interpretation; "the predetermined confined shape changes only in area and evenly exerts force upon all sides of the neck of the bag, thus minimizing stresses." Apparently, it is critical to this invention that the force of the closing apparatus be even on all sides to minimize tearing stress. This objective is re-stated in the summary of the invention: "[i]t is a further object of the present invention to adjustably vary the opening in a bag by exerting evenly displaced stresses upon the neck of the bag to minimize the possibility of tearing the bag." (Patent P.2, L.2-5).

If the sides move evenly toward and away from each other, then the shape will not change. Put another way, if the shape changes, the sides must not be moving evenly and therefore there would be an increased risk of tearing the bag. Plaintiffs cannot argue that an object of their patent - even force on all sides to minimize tearing - should be interpreted to mean something different than what it describes. The Court interprets the purpose of the '689 patent as to protect a device that keeps its predetermined shape, while it alters the area of the opening, so that the forces exerted are evenly dispersed on all sides of the neck of a bag.

## **B. Claim 20**

The disputed portion of claim 20 reads:

(e) maintaining the predetermined confined shape between the opposed members while changing the confined area thereof during said movement of the opposed members, whereby said movement of the members toward each other constricts the opening to restrict the discharge of material from within the bag and gathers the neck in such a way that the neck may be easily tied, and movement of said members away from each other allows the opening to enlarge such that the material from within the bag is discharged more freely, said engagement of the neck within the predetermined shape minimizing tearing stresses placed on the bag by the opposed members.

Plaintiff contends that “[p]roperly construed in view of the patent specification, this limitation means that:

When the opposed members engage a bag opening to restrict discharge of material from the bag by moving the opposed members closer toward each other, the confined shape between the opposed members is substantially maintained while the confined area between the members is changed so that the opposed members engage the bag neck evenly from all sides to minimize tearing stresses on the bag. Movement of the opposed members toward each other gathers the neck of the bag so that it may be easily tied, and movement of the members away from each other enlarges the bag opening so that material within the bag is discharged more freely.”

“Plaintiff’s Motion For Claim Construction” (Document No. 62 at 2) (emphasis added).

Defendant contends that for claim 20 the “language should be construed to require:

The predetermined shape (or spatial contour decided beforehand) formed between the opposed parts must be maintained (or kept in its existing shape) when the confined area between the members changes or becomes different as the members move.”

“Defendant’s Memorandum In Support Of Its Motion...” (Document No. 77 at 4).

Based on the same reasoning as described in the analysis above, the undersigned finds Defendant’s construction more persuasive. Viewing the patent as a whole, and relying principally on intrinsic evidence, the undersigned again finds that a “predetermined confined shape” is properly

construed in the context of this patent as describing a shape or contour that is preset by the apparatus and is not altered (or changed) by the functioning of the apparatus. In other words, the area of the shape created by the apparatus may enlarge or shrink with its movement, but the shape itself should remain constant.

In reaching this construction, the undersigned finds the language of the claim most instructive: “maintaining the predetermined confined shape between the opposed members while changing the confined area thereof during said movement of the opposed members....” (Patent P.8, L. 47-50) (emphasis added). As discussed in the analysis of claim 1 above, the juxtaposition of words chosen by the patent’s author are telling - “maintaining the predetermined confined shape” compared to “while changing the confined area” describes a shape that is maintained, or stays the same or is constant, while in contrast the area changes.

This construction rests on the “bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” Innova, 381 F.3d at 1115. The undersigned’s construction also “indulge[s] a ‘heavy presumption’ that claim terms carry their full ordinary and customary meaning, unless the patentee unequivocally imparted a novel meaning to those terms or expressly relinquished claim scope during prosecution.” Omega Engineering, Inc. v. Raytek Corp., 334 F.3d 1314, 1323 (Fed. Cir. 2003) (citations omitted).

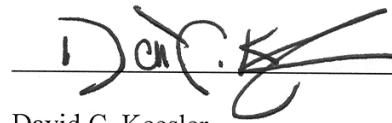
#### **IV. CONCLUSION**

The patentee in this case has not imparted any novel meanings on the words or terms in the disputed claims and the Court will recognize “maintain,” “predetermined,” “confined,” “shape,” “not” and “change,” among others, as having their ordinary and customary meanings in construing the disputed claims. In this case, that determines that the patent will be construed to identify an

apparatus with an opening that is in a “predetermined confined shape” or specific spatial contour, that will not change or alter as the apparatus’ control bars move. The proper construction is of a device that controls the area of its opening and allows it to vary for the constricting of bags, but keeps or maintains that opening in a shape that remains constant.

**IT IS, THEREFORE, ORDERED** that the foregoing claim construction controls. The parties shall proceed in a manner consistent with the conclusion of this Order.

Signed: August 24, 2007

  
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David C. Keesler  
United States Magistrate Judge 